

REMARKS

Claims 1-2, 4-6, and 8-20 are all the claims pending in the application. New claims 10-20 have been added to further define the invention.

Claim Rejections - 35 U.S.C. § 103

The Examiner rejected claims 1, 2, 4-6, 8 and 9 under §103 as being unpatentable over US Patent 4,296,069 to Smith et al. (hereinafter Smith) in view of US Patent 4,296,069 to Hamblen et al. (hereinafter Hamblen) and US Patent 5,814,277 to Bell et al. (hereinafter Bell). Applicant respectfully traverses this rejection for the following reasons.

Independent Claims 1, 5, and 9

First, with respect to claims 1, 5, and 9, there is no motivation for combining Smith, Hamblen and Bell. “[O]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination” In re Geiger, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987) (citing ACS Hosp. Sys. v. Montefiore Hosp., 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984).

Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be “clear and particular.” Winner International Royalty Corporation v. Ching-Rong Wang, 202 F.3d 1340, 1348, 53 USPQ2d 1580, 1586-87 (Fed. Cir. 2000). Conclusory statements such as common knowledge to one skilled in the art or common sense do not fulfill the agency’s obligation. In re Sang Su Lee, 277 F.3d 1338, 1345 - 46, 61 U.S.P.Q.2d 1430, 1438 (2002).

Most if not all inventions arise from a combination of old elements. In re Kotzab, 55 U.S.P.Q.2d at 1316 (citing In re Rouffet, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457 (Fed. Cir. 1998). Thus, every element of a claimed invention may often be found in the prior art. *Id.* However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. *Id.* Rather, to establish obviousness based on a

combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant. *Id.* at 1316; In re Gordon, 733 F.2d 900, 902, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

In the present case, one of ordinary skill in the art would not have been motivated to combine Smith and Hamblen as suggested by the Examiner. Smith references Hamblen as teaching a type of electrodes that may be used to measure ionic activity in his device. (col. 3, lines 12-21). Also, both references disclose ionic activity measuring means. Therefore, one of ordinary skill in the art would not have combined Hamblen with Smith as suggested by the Examiner because Hamblen's teachings are redundant to those in Smith. Further, Smith is aware of the Hamblen invention, and yet, he does not come up with a single incubator chamber that is capable of storing analysis for measuring concentration of specific chemical analysis and storing analysis for measuring the ionic activity. Also, Hamblen does not disclose colorimetric analysis. Thus, if at all motivated to combine the teachings of Smith and Hamblen, one of ordinary skill in the art would have modified the potentiometric incubator only. Thus, since Smith is aware of and incorporates Hamblen's teachings already, there is no motivation to combine the two references in the manner suggested by the Examiner.

Second, with regard to claims 1 and 9, the references fail to establish *prima facie* obviousness in that they fail to teach or suggest every element as set forth in Applicants' claims.

Claims 1 and 9 recite an incubator, which stores the first chemical analysis element *and* the second chemical analysis element. An exemplary, non-limiting embodiment of this specific feature is discussed in the specification at page 21, lines 9-19. Also, claims 1 and 9 recite a temperature control means that holds the first *and* second chemical analysis element at a predetermined different temperature. An exemplary, non-limiting embodiment of this specific feature is discussed in the specification at page 21, lines 10-17.

The Examiner contends that Smith's incubators 22 and 24 meet the incubator of the present invention. The Examiner is misinterpreting and/or misapplying the teachings of the

Claims not limited to single incubator

reference. For example, in Smith, potentiometric-type slides, used to measure the ionic activity, are deposited in the incubator 22, whereas colorimetric-type slides, used to measure concentration of specific chemical compound, are deposited in the incubator 24. (col. 3, lines 46-53). Each incubator is specifically designed to store only one type of slides. Thus, each incubator 22 and 24 is incapable of storing two different types of slides.

Also, in Smith, the incubators 22 and 24 hold a specific constant temperature, preferably 37°C. (col. 4, line 33). Each incubator 22 and 24 is capable of maintaining only one temperature. In contrast, the present invention's incubator is capable of holding different temperatures at the same time. Therefore, Smith's incubators 22 and 24 fail to teach or suggest the incubator as claimed by the Applicant.

Hamblen uses electrode-mounting frame to measure ionic activity within a sample liquid (col. 4, lines 20-65), whereas in the present invention, an incubator is used. Also, Hamblen does not disclose a measuring device or a method for measuring the concentration of specific components contained in the sample fluid, whereas the present invention measures both the ionic activity and the concentration amount of a sample. Finally, Hamblen does not suggest the temperature at which the ionic activity is to be measured, whereas in the present invention, a different temperature for each type of the measuring activity is disclosed. Thus, Hamblen fails to suggest the incubator as claimed by the Applicant.

Further, the Examiner contends that Bell teaches a bar code reader of the present invention. The Examiner is misinterpreting the teachings of the reference. In Bell, the bar code reader is an optically encoded sheet (col. 7, lines 35-55). Further, in Bell, the bar codes are scanned in by an operator and are stored in the computer/system (col. 7, lines 35-42), whereas in the present invention, the bar code reader is provided on each chemical analysis element. In particular, the bar code reader is located on the back of each chemical analysis element. Therefore, Bell fails to teach the bar code reader as claimed by the Applicant.

All three references, Smith, Hamblen and Bell, fail to teach or suggest a number of elements of the present invention. Therefore, *arguendo*, even assuming one of ordinary skill in the art were motivated to combine the references as suggested by the Examiner, any such

not in
claims

combination would still fail to teach or suggest all the elements as set forth in Applicant's claims. Thus, claims 1 and 9 are patentable over Smith in view of Hamblen and Bell.

Claims 2, 4, 6, 8

Since claims 2 and 4 are dependent upon claim 1, they are patentable at least by virtue of their dependency. Further, claims 6 and 8 are patentable at least by virtue of their dependency on claim 5.


Conclusion

New claims 10-20 have been added to further define the invention. The new independent claim 16 is patentable for at least the same reason as discussed in conjunction with claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,


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Date: May 13, 2002

APPENDIX

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

The claims have been amended as follows:

1. (Twice Amended) A chemical analysis system comprising
a means for spotting a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid,
a means for spotting a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid,
an incubator in which the first chemical analysis element spotted with the sample liquid and ~~and~~ the second chemical analysis element spotted with the sample liquid and the reference liquid are ~~is~~ placed and which holds the first and ~~and~~ second chemical analysis elements ~~element~~ at ~~a~~ constant temperatures ~~temperature~~,
a concentration measuring means which is provided to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator,
an ionic activity measuring means which is provided to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator,
a temperature control means which holds the first and ~~and~~ second chemical analysis elements ~~element~~ at ~~a~~ predetermined temperatures ~~temperature~~ and
a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

9. (Twice Amended) A chemical analysis system, comprising:

a spotting mechanism operable to spot a sample liquid onto a first chemical analysis element for measuring the concentration of a specific component contained in the sample liquid, and operable to spot a sample liquid and a reference liquid onto a second chemical analysis element for measuring the activity of a specific ion contained in the sample liquid;

an incubator in which the first chemical analysis element spotted with the sample liquid and~~[/or]~~ the second chemical analysis element spotted with the sample liquid and the reference liquid are [~~is~~] placed and which holds the first and~~[/or]~~ second chemical analysis elements [~~element~~] at [a] constant temperatures [~~temperature~~];

a concentration measuring device operable to measure the concentration of the specific component contained in the sample liquid by measuring the optical density of the color formed by the coloring reaction of the sample liquid and a reagent on the first chemical analysis element after incubation in the incubator;

an ionic activity measuring device operable to measure the ionic activity of the specific ion contained in the sample liquid after incubation in the incubator;

a temperature control device which holds the first and~~[/or]~~ second chemical analysis elements [~~element~~] at [a] predetermined temperatures [~~temperature~~]; and

a detector comprising a bar code reader for detecting the position of the chemical analysis element in which the chemical analysis element is conveyed by reading a bar code provided on each chemical analysis element.

Claims 10-20 have been added as new claims.